Results for the 14'x160' circular tank with ramp:

Circular tank:

Tank Diameter = 160 ft
Tank Wall thickness = 12 in (actual)
Tank Height = 14 ft
f_y= 60,000 psi
f'_c = 4,000 psi

Horizontal Steel = #4 rebar Steel shown in table must be placed in each face of the wall		
Bar #	Spacing (in)	Distance from finished floor (ft - in)
1	3	0' 3"
2	10	1' 1"
3	10	1' 11"
4	10	2' 9"
5	9	3' 6"
6	9	4' 3"
7	9	5' 0"
8	9	5' 9"
9	8	6' 5"
10	8	7' 1"
11	8	7' 9"
12	8	8' 5"
13	8	9' 1"
14	8	9' 9"
15	8	10' 5"
16	8	11' 1"
17	8	11' 9"
18	8	12' 5"
19	8	13' 1"
20	8	13' 9"

Vertical Steel = #4 @ 10" O.C. in each face.
Dowels "L" bars from tank to footing shall be #4 @ 10" O.C. at the interior mat of steel. 26" vertical leg, 10" horizontal leg

For a length of 80 feet, centered on the ramp:

Substitute #5 rebar for the #4 horizontal rebar for bars #4 to bar #11 in the tank. (8 extra bars in each mat of steel, 16 total).

Substitute #5 @ 10" O.C. vertical steel in each face for the #4 @ 10" O.C. vertical steel in each face.

In the tank wall, at the corner of the notch for the ramp add:

4-#6 bars x 13'-10" long @ 6" O.C. vertically in each mat of steel (8 total)
4-#6 bars x 20' long @ 6" O.C. horizontally in each mat of steel (8 total)
4-#6 bars x 6 feet long @ 6" O.C. at a 45 degree angle in each mat of steel (8 total).

NRCS *Natural Resources Conservation Services* *United States Department of Agriculture*	_____ *County, PA* ***ROUND TANK W/RAMP*** ***DETAIL Page 6.30***	Designed *PA NRCS 12/01* Drawn *Hartz 2/1/08* Revisions *Pereverzoff 1/9/08* Checked _____ Approved _____